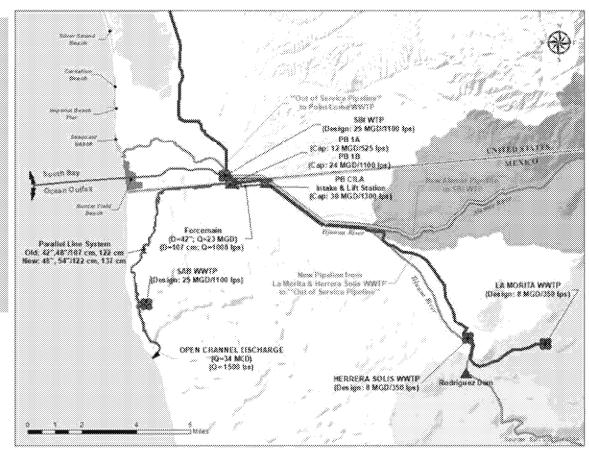


# Alternative 5b - Gravity reclaimed water pipeline System from La Morita/Herrera Solis WWTPs to Point Loma WWTP

## Combined diversion facilities in the U.S. and Mexico include:

- New reclaimed water pipeline extending 12 miles (20 km) through Tijuana from La Morita/Herrera Solis WWTPs effluent
- Pipeline connection to Point Loma WWTP
- 60-in WW line connecting to SBIWTP for full treatment
- Capital Cost: \$387.5M USD



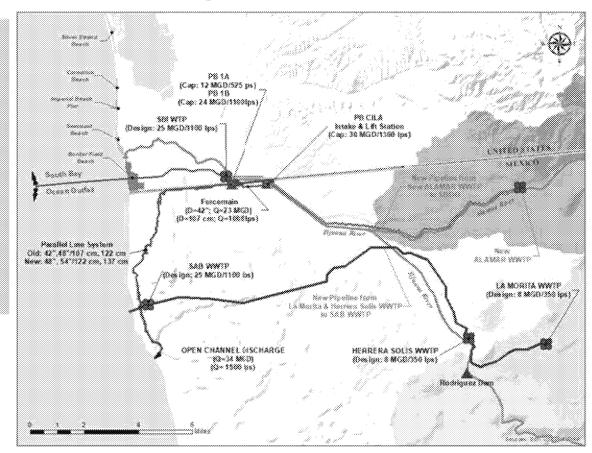
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# Alternative 5c - La Morita/Herrera Solis WWTPs discharge into the ocean in MX side Alamar WWTP discharges at SBOO

### Combined diversion facilities in the U.S. and Mexico include:

- 48-in reclaimed water line connecting La Morita/Herrera Solis effluent to SAB WWTP
- Proposed WWTP at Alamar with 48-in connection to discharge at SBOO
- Capital Cost: \$273.2M USD



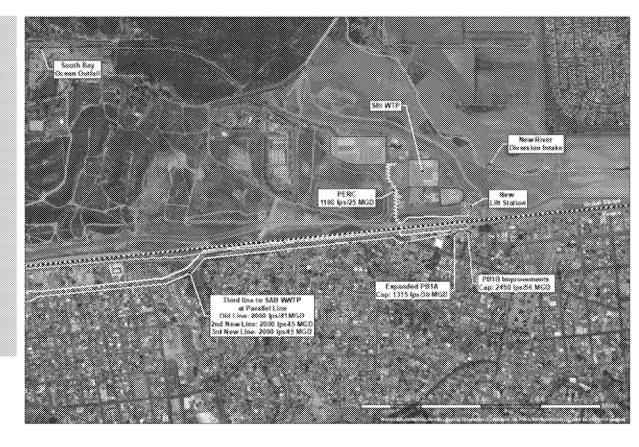
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# Alternative 5d - New Lift Station to Divert Flow in the U.S. with discharge to PERC and treatment at SAB WWTP

Combined diversion facilities in the U.S. and Mexico include:

- New intake and 356 MGD diversion lift station discharging at the PERC
- 10 mile long (16 km) 48-in forcemain/gravity combined parallel system with discharge to SABWWTP
- New wet well at PB1B
- PERC rehabilitation
- PB1B upgrade
- Capital Cost: \$105M USD



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#### Task 3 - Evaluation Matrix

Defining the Parameters:

Capital Cost
O&M Cost
Jurisdictional Control
Operational flexibility
Regulatory/Institutional Complexity
Transboundary flow reduction
Public Perception
Phasing Flexibility

- Prioritize the Criteria
- Evaluate the alternatives relative to Criteria



#### Parameters

**Jurisdictional Control** – Degree of owner influence on the planning, design and operation of Tijuana diversion alternatives. The owner of the project would have much greater control with the new facilities compared to use of facilities owned by others.

**Operational Flexibility** – Flexibility available for managing the selected TJ diversion alternative. In general, the least number of new operational intensive components along with a larger operations support group is favorable.

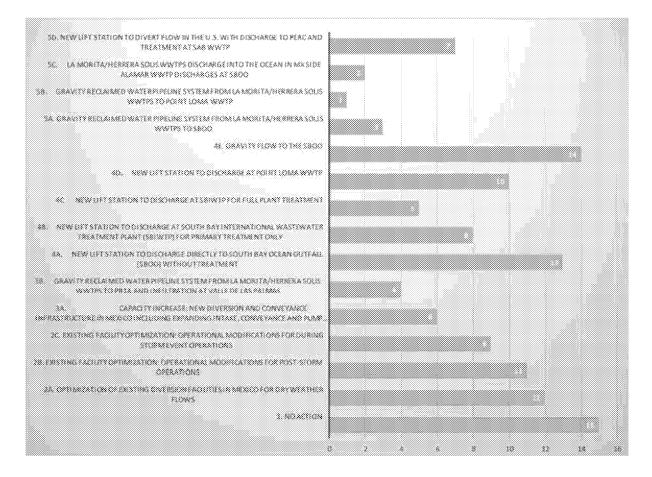
**Regulatory/Institutional Complexity** – Complexity of implementation, including compliance with binational agreements, regulatory standards, number and complexity of new lift stations and treatment facilities, agreements, other agency approvals and support, etc.

**Transboundary Flow Reduction**— Degree of ability to reduce the transboundary flows with a more efficient diversion system.

**Public Perception** – General perception of the public of the alternative reducing any potential contact with contaminated water

**Phasing Flexibility** – Degree of availability the project could be split into phases of construction without compromising daily operation of the existing infrastructure

#### Task 3 - Evaluation Criteria Scoring





1 Highest Cost 15 Lowest Cost

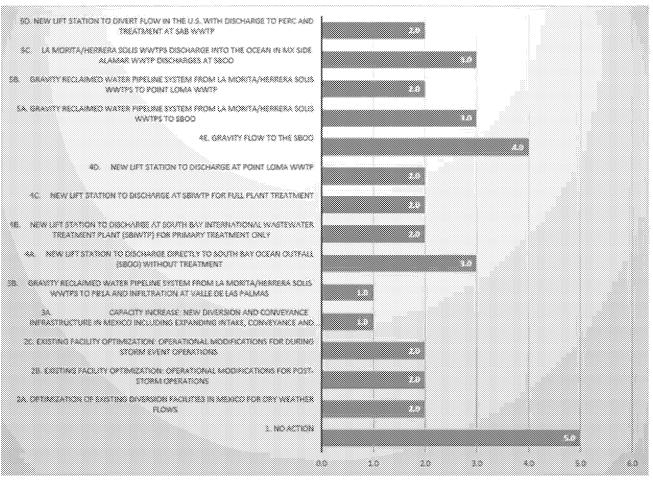
Highest Cost – 5b.
Gravity reclaimed water pipeline System from La Morita/Herrera Solis WWTPs to Point Loma WWTP

Lowest Cost – 4e. Gravity flow to the SBOO

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#### Task 3 - Evaluation Criteria Scoring





5 Lowest O&M Cost1 Highest O&M Cost

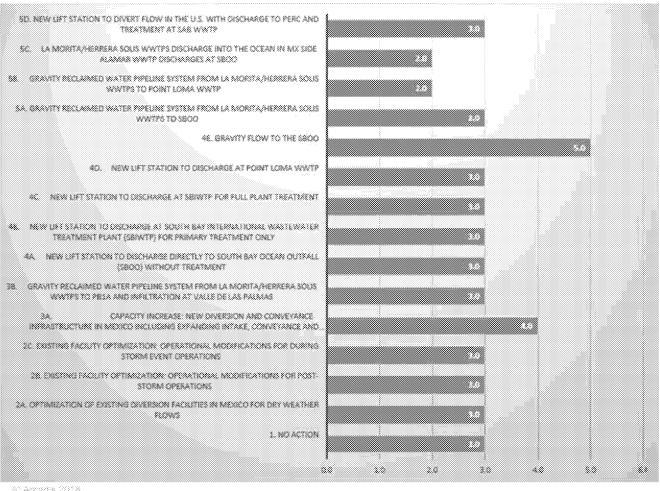
**Highest O&M Cost** – 3b and 3a

Lowest O&M Cost – 1 and 4e

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2 Lowest Op Flexibility 5 Highest Op Flexibility

Highest Op. Flex - 4e

Lowest op. Flex - 5c, 5b

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# Project Schedule

Tasks & Deliverable	Date
Kick off meeting	05/09/18
30% Progress deliverable	08/24/18
30% Review and presentation	08/28/18
60% Progress deliverable to NADB	Early November
Draft report review and presentation	Early December
Final report	January

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### Next Steps

- Finalizing Task 1 & Task 2
- Finalizing the Evaluation Matrix
- Updating alternatives from meeting's input
- In-depth analysis
- O&M Costs
- 60 percent deliverable

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### Questions/Discussion



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